Decision Support System Prototype Of Planning And Controlling Comercial Vegetables Productions

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First idea in the beginning was to get right decision in the vegetables agribusiness managements. Fortunatelly, decision support system can help decision maker as management to get the best choice of all decision alternatives to solving the problem. Decision alternatives are information process using decision models.

Goal of writing the thesis is for: (1) Investigation, analysis and design the system of decision support system in planning and controlling vegetables production.(2) Build the prototype of decision support system in planning and controlling vegetables production. At last, the decision support system must be helping marketing, production and financial department for corporate advantages.

This research using descriptive method with case study with both qualitative and quantitative data through system development that combines both SDLC and prototyping. Three step of system development in the thesis are (1) System investigation (2) System analysis and system design (3) Prototyping continuing test the prototype.

System investigation requires a feasibility studies that (1) DSS was needed to solving the problem in planning and controlling vegetables production with tool named Process flow diagram of planning and controlling vegetables production (2) include an organizational feasibility and a technical feasibility with tool named Matrix component, so the project development system can be continued with system analysis and system design.

Stage system analysis is develop a functional requirement. This functional requirement include Data Flow Diagram (DFD) supported by dictionary data. Next stage after system analysis is system design that produce system specification that satisfying the functional requirements. This system specification uses tools named Entity-Relationship Diagram (ERD) and Description flow diagram of planning and controlling vegetables production.

Finally prototyping are build and testing the prototype that can be working well or not. This prototype helped by Microsoft Excel as data processor that supported by Minitab as time series forecasting tool and Lindo as optimalization tool.

Output of the prototype can make the decision maker decided to take the finest decision because the models completed with financial analysis such as BEP, ROI, B/C Ratio, IRR, NPV and MIRR that desribe about the invest around vegetables investment to take optimal advantage for the company.